CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

21-226

21-251

CHEMISTRY REVIEW(S)

DIVISION OF ANTIVIRAL DRUG PRODUCTS

Review of Chemistry, Manufacturing, and Controls Section

<u>NDA #</u>: 21-226

CHEMISTRY REVIEW #: 1 DATE REVIEWED: 15-SEP-00

SUBMISSION TYPE	DOCUMENT DATE	CDER DATE	ASSIGNED DATE
Pre-submission	31-MAR-00		
Original NDA	31-MAY-00	01-JUN-00	06-JUN-00
BZ	28-JUN-00	29-JUN-00	30-JUN-00
BC	07-SEP-00	08-SEP-00	12-SEP-00
BC -	13-SEP-00	14-SEP-00	
NC	14-SEP-00	15-SEP-00	
NC	15-SEP-00	18-SEP-00	

NAME/ADDRESS OF APPLICANT: Abbott Laboratories

D-491/AP6B-1

100 Abbott Park Road

Abbott Park, IL 60064-3500

DRUG PRODUCT NAME:

Proprietary: KALETRATM

Nonproprietary: Lopinavir/Ritonavir Code Name/#: Abbott-84387, ABT-378

CHEM.TYPE/THER.CLASS: 1P

PHARMACOLOGICAL CATEGORY: Antiviral

INDICATION: In Combination with Other Antiretrovial Agents for the

Treatment of HIV Infection

DOSAGE FORM/STRENGTH: Soft Gelatin Capsules, 133.3 mg/33.3 mg

ROUTE OF ADMINISTRATION: PO

Rx/OTC:X Rx OTCSPECIAL PRODUCT:Y es X No

CHEMICAL NAME / STRUCTURAL FORMULA:

Lopinavir

[1S-[1R*, (R*),3R*,4R*]]-N-[4-[[(2,6-dimethylphenoxy)acetyl]amino]-3-hydroxy-5-phenyl-1-(phenylmethyl)pentyl]tetrahydro-alpha-(1-methylethyl)-2-oxo-1(2H)-pyrimidineacetamide

CAS Registry Number

192725-17-0

Formula

C37H48N4O5

M.W.

628.80

Ritonavir

10-Hydroxy-2-methyl-5-(1-methylethyl)-1-[2-(1-methylethyl)-4-thiazolyl]-3,6-dioxo-8,11-bis(phenylmethyl)-2,4,7,12-tetraazatridecan-13-oic acid, 5-thiazolylmethyl ester, [5S-(5R*, 8R*, 10R*, 11R*)]-

CAS Registry Number

155213-67-5

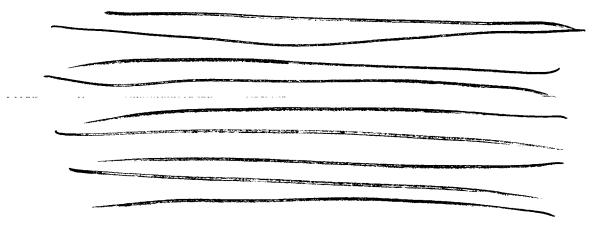
Formula

C37H48N6O5S2

M.W.

720.95

SUPPORTING DOCUMENTS:



RELATED DOCUMENTS:

NDA 20-945 Chemistry Review (for ritonavir drug substance and soft gelatin capsules)

NDA 20-659 Chemistry Review (for ritonavir drug substance)

Chemistry facsimile letter dated 9/1/00

Chemistry facsimile letters dated 9/11/00

Teleconference minutes dated 9/14/00

CONSULT REVIEWS:

Trade name review by OPDRA

Pharmacology review for qualification of impurity and pertinent excipients

Product specific inspection of DS and DP manufacturing sites

CONCLUSIONS/RECOMMENDATIONS:

The NDA submission and accompanying amendments provide adequate information on the chemistry, manufacturing and controls for KALETRA Capsules. The manufacturing facilities have acceptable cGMP status. The NDA, as amended, is therefore recommended for approval from the chemistry perspective.

Ko-Yu Lo, P. D., Review Chemist

Concurrence:

HFD-530/SMiller

13/ 0/13/00

cc:

Orig. NDA 21-226

HFD-530/Div. File

HFD-530/KLo

HFD-530/SMiller

HFD-530/KStruble

HFD-530/SLynche

HFD-830/CChen